



Translation

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 26 and Rule 70)

Applicant's or agent's file reference P801014/WO/1	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/001643	International filing date (day/month/year) 21 May 2003 (21.05.2003)	Priority date (day/month/year) 11 June 2002 (11.06.2002)
International Patent Classification (IPC) or national classification and IPC H02J 7/14		
Applicant DAIMLERCHRYSLER AG		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.  <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of _____ sheets.
3.	This report contains indications relating to the following items: <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>

Date of submission of the demand 12 December 2003 (12.12.2003)	Date of completion of this report 31 March 2004 (31.03.2004)
Name and mailing address of the IPEA/EP  Facsimile No.	Authorized officer  Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/001643

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages 1-16, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
 pages 1-12, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
 pages 1/3-3/3, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

**2. Citations and explanations****1. Reference is made to the following document:**

D1: EP1137150.

**2. Document D2, considered to be the closest prior art, discloses (see column 3, line 45 to column 6, line 23; figures 1 to 6) a power supply arrangement for multiple consumers in a vehicle, said arrangement having two energy storage devices (2, 3), a first energy storage device (2) being connected to a starter (S), in a starter sub-circuit, for starting an engine, and a second energy storage device (3), in a consumer sub-circuit, being connected to the consumers (KL 15, 30, 15SV, 30SV).**

The arrangement described in D1 also includes:

- a control device (6, 7);
- a coupling element (R1) by means of which the starter sub-circuit can be connected to the consumer sub-circuit;
- additional coupling elements (R2, R5) that connect consumers (KL 15SV, 30SV), which are classified as safety-relevant, to the starter sub-circuit:

- (implicit) measuring means for capturing data, from which data a data processing unit in the control device (it being implicit that said unit is built into the control device) can detect (monitor) the state of both energy storage devices, as a result of which, the coupling element (R1) and the additional coupling element (R2) can be switched as a function of the detected state.

The subject matter of claim 1 differs therefrom in that:

- a) each of the consumers which are classified as security-relevant is connected to the starter sub-circuit by the additional coupling elements;
- b) the claimed arrangement includes measuring means which:
  - output information relating to a current supplied to a safety-relevant consumer and relating to a voltage which decreases across said consumer;
  - continuously monitor the state of the safety-relevant consumers and the paths thereto.

**3. The problem of interest:**

The problem of interest is to prevent discharge of the starter energy storage device as a result of rest currents flowing from safety-relevant consumers

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when the capacitance is insufficient for starting to take place, and also to improve monitoring of the state of said consumer in order that, when necessary, individual consumers can be disconnected in sequence.

#### 4. The solution

This problem is solved by means of the additional coupling elements that connect each safety-relevant consumer to the starter sub-circuit. In this way, a particularly advantageous use of the energy storage device in the starter sub-circuit is made possible.

The subject matter of claim 1 is therefore novel.  
(PCT Article 33(2)).

Claims 2 to 12 are dependent on claim 12 and thus likewise satisfy the PCT requirements in respect of novelty and inventive step.

#### Other observations

1. Claim 1 has been duly drafted in the two-part form, but the features relating to the additional coupling elements and the measuring means for capturing data from the two energy storage devices should not have been included in the characterising part, since they were disclosed in D1 in conjunction with the features indicated in the preamble (PCT Rule 6.3(b)).

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2. Device claims 2 to 7 and 9 to 12 incorrectly contain method features.
3. Contrary to PCT Rule 5.1(a)(ii), the description does not cite document D1 or indicate the relevant prior art disclosed therein.